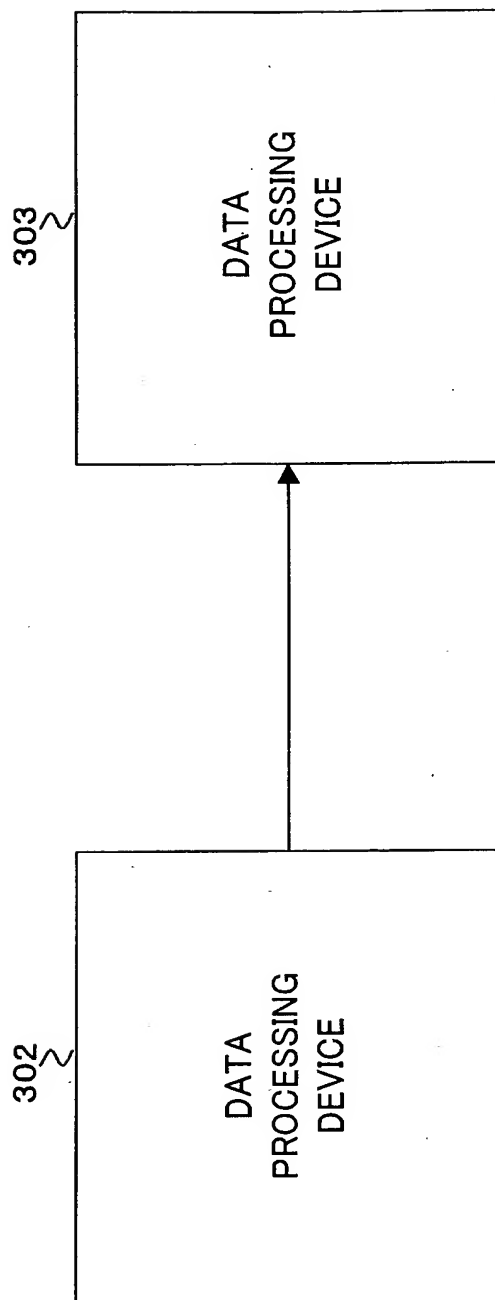


FIG. 1



301

FIG. 2

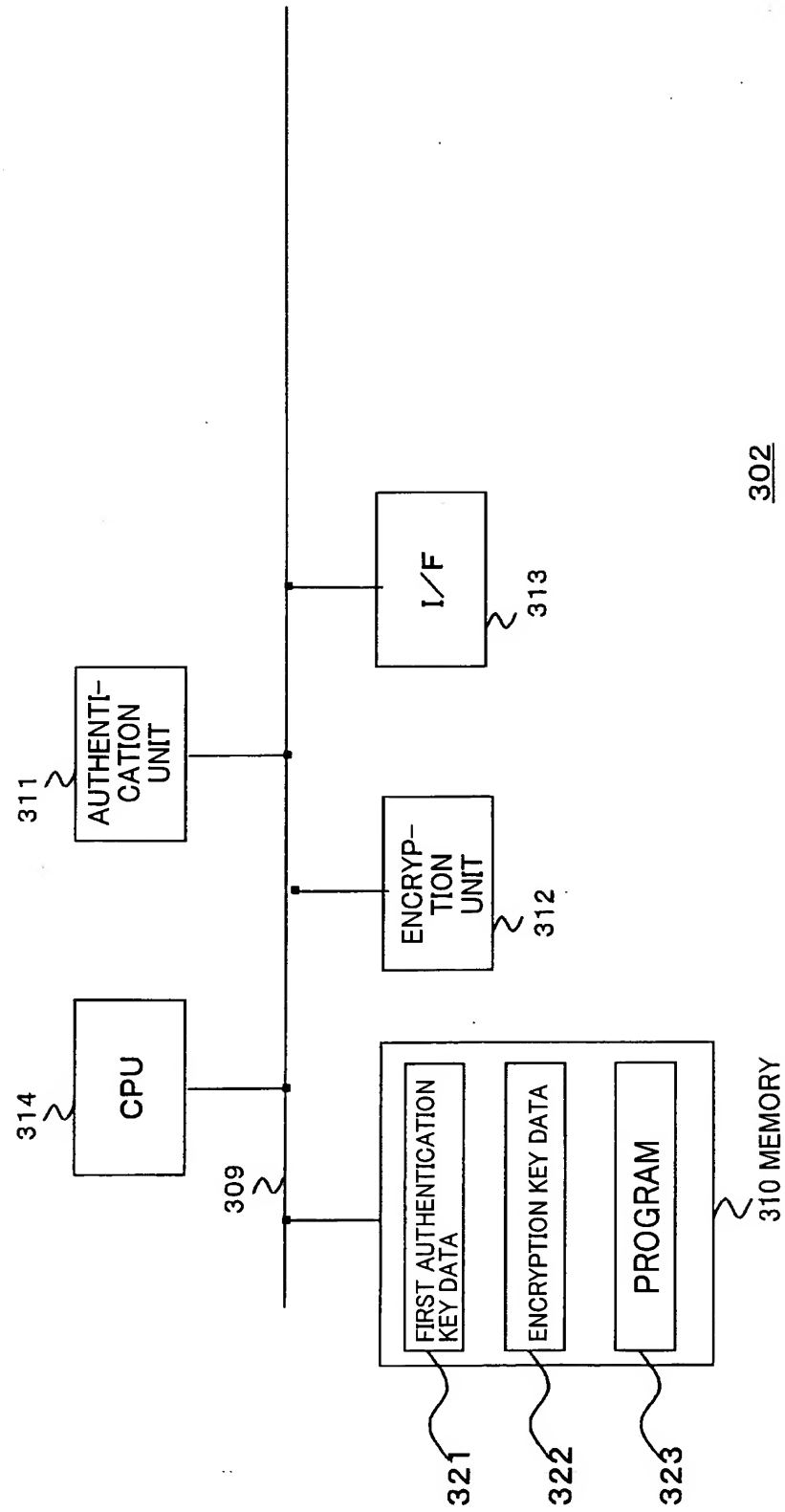


FIG. 3

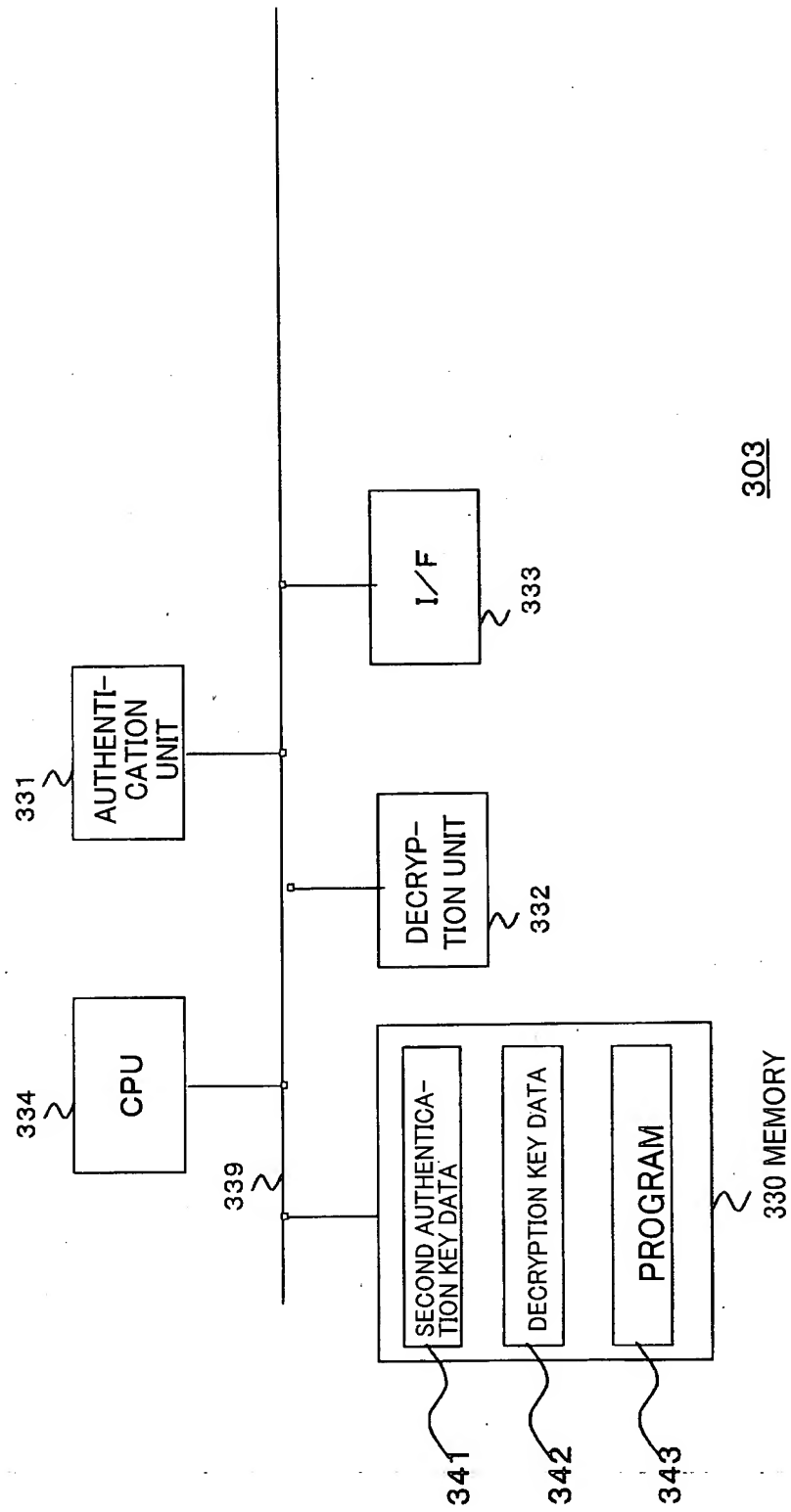


FIG. 4

DATA PROCESSING DEVICE 303

DATA PROCESSING DEVICE 302

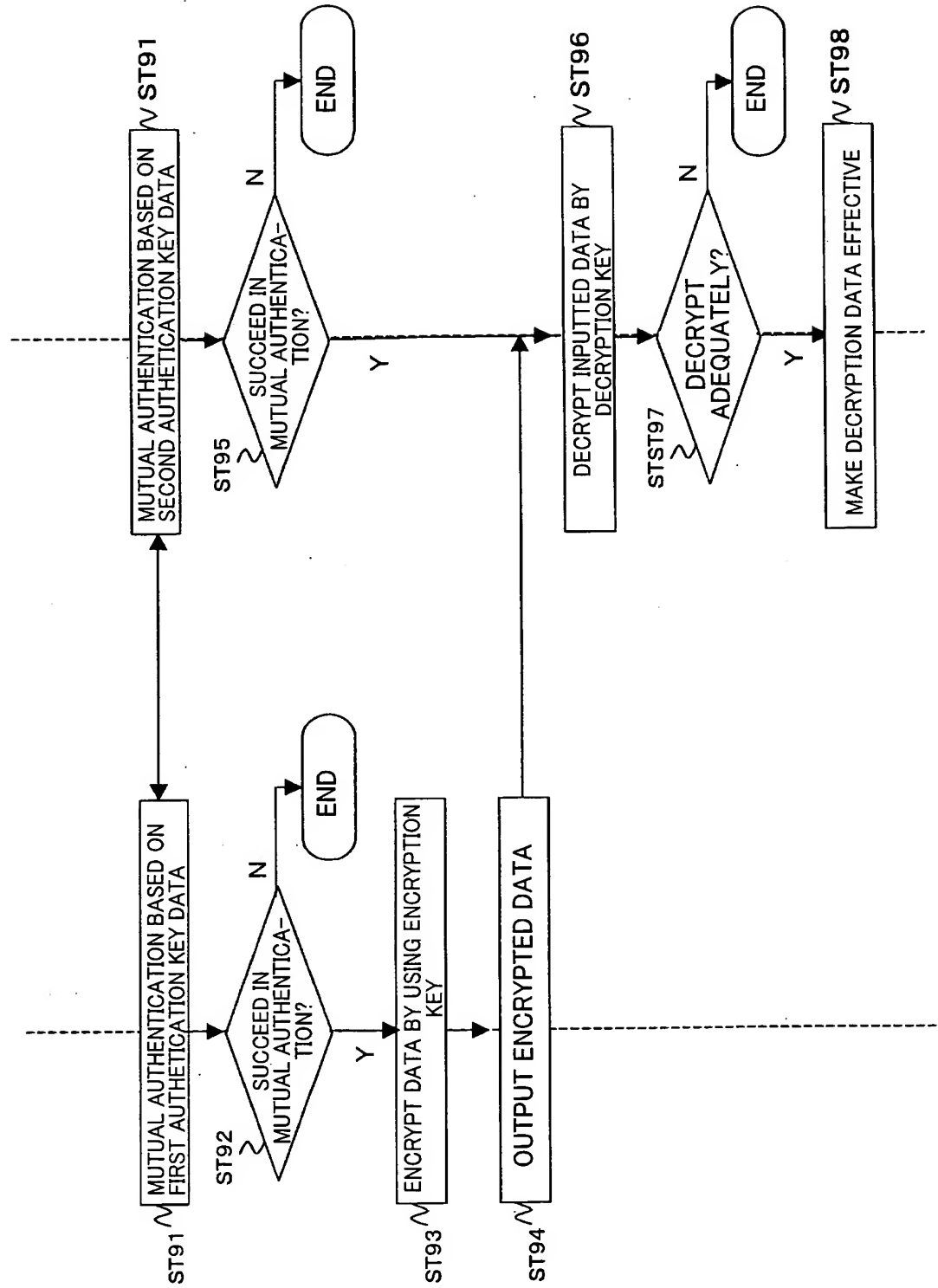


FIG. 5

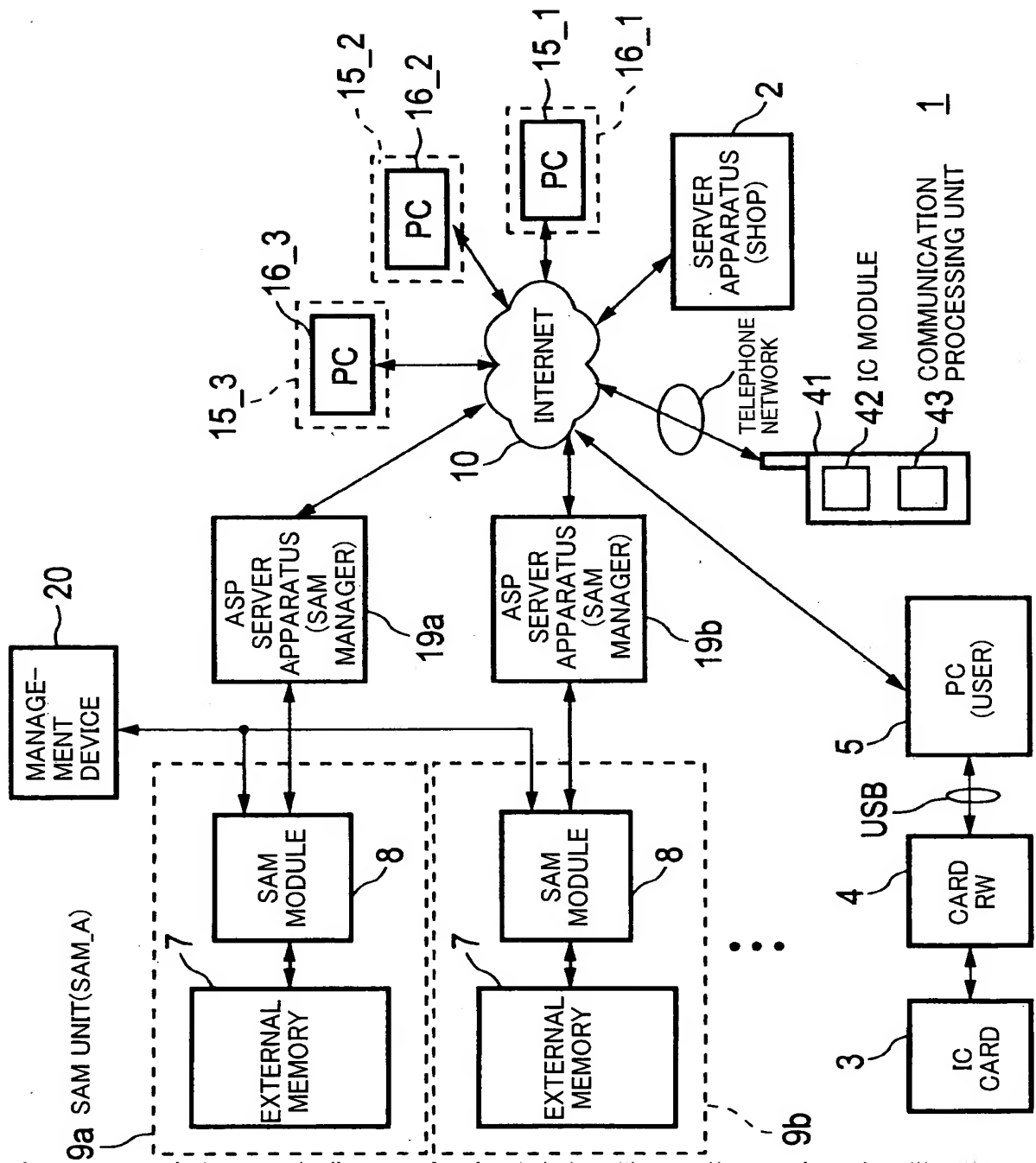


FIG. 6

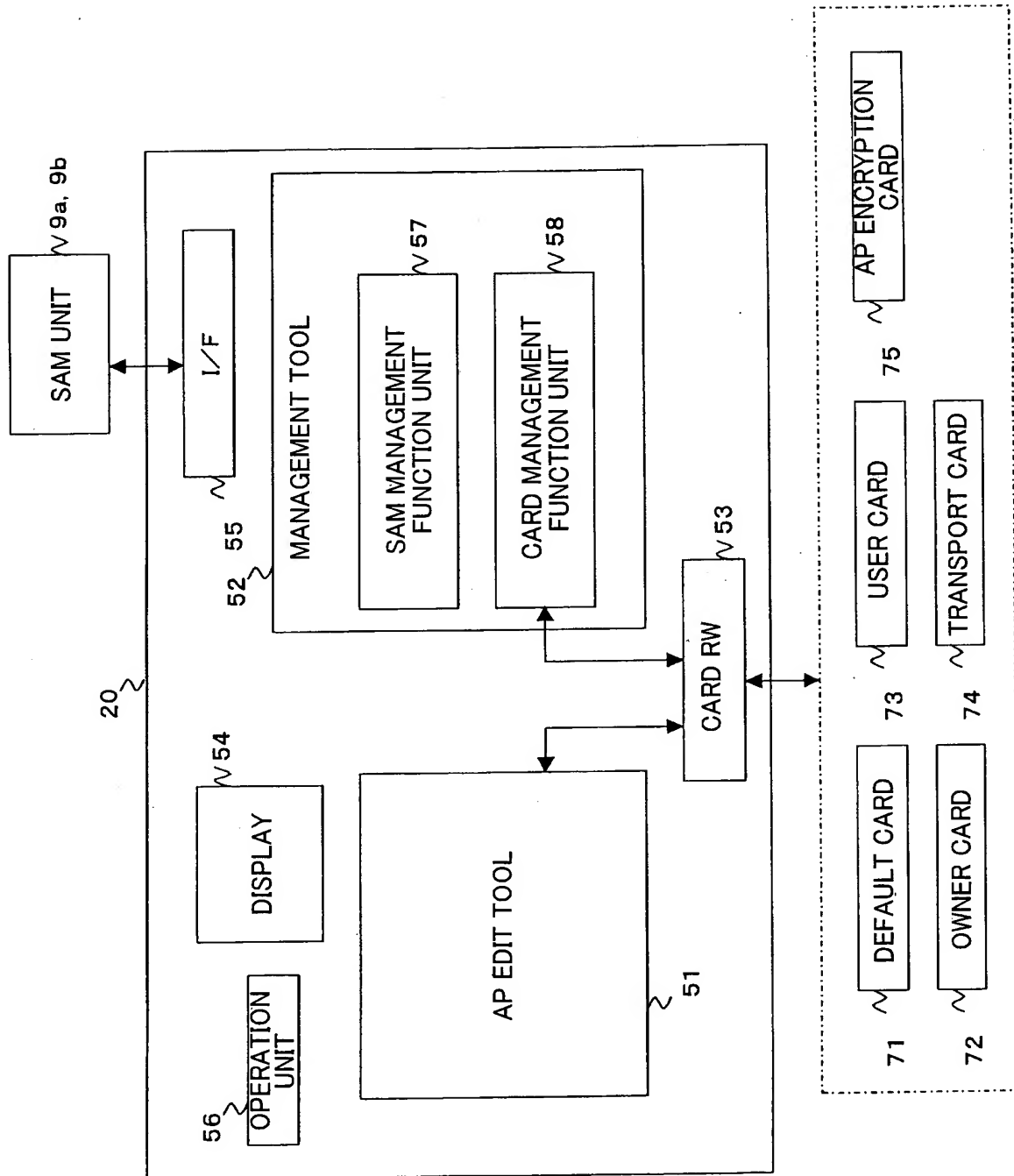


FIG. 7

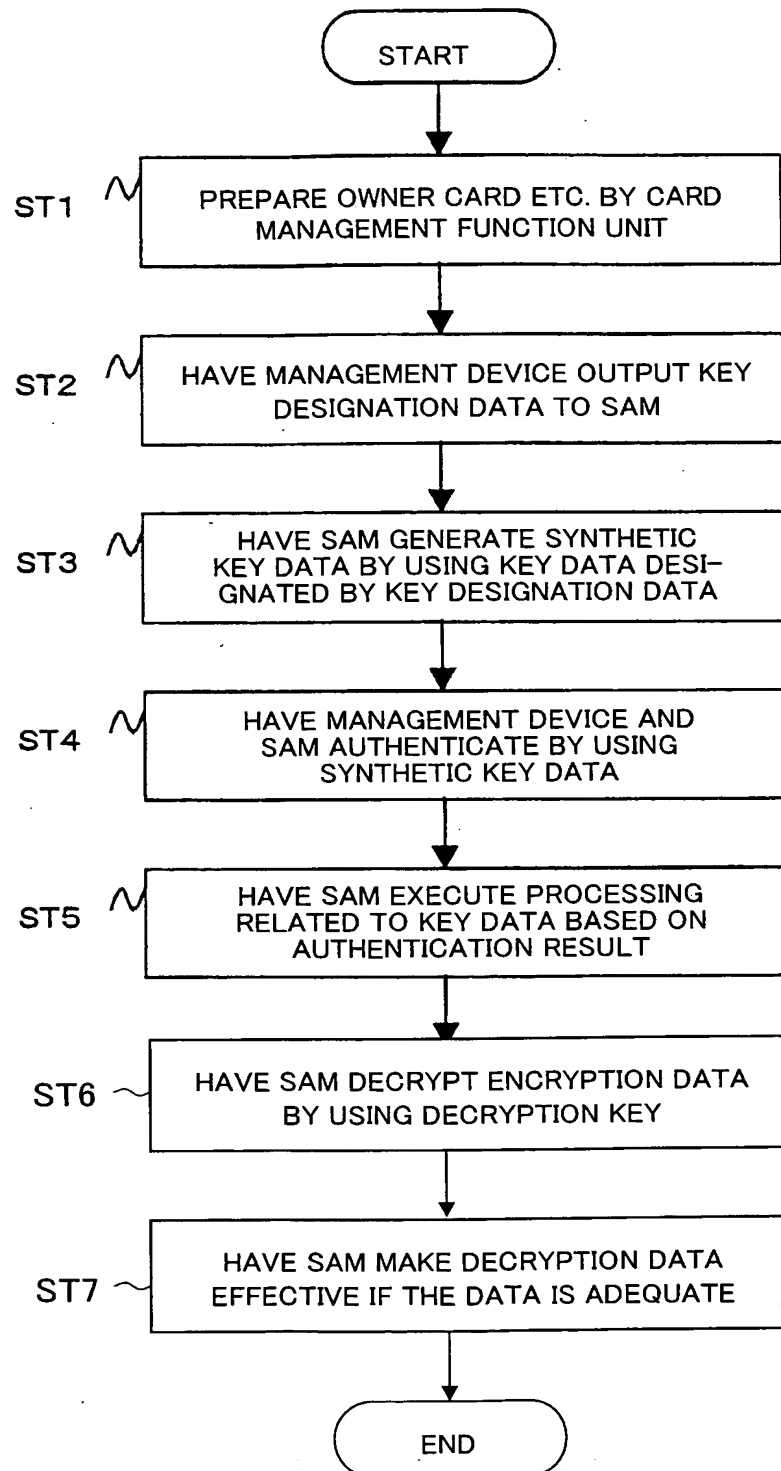


FIG. 8

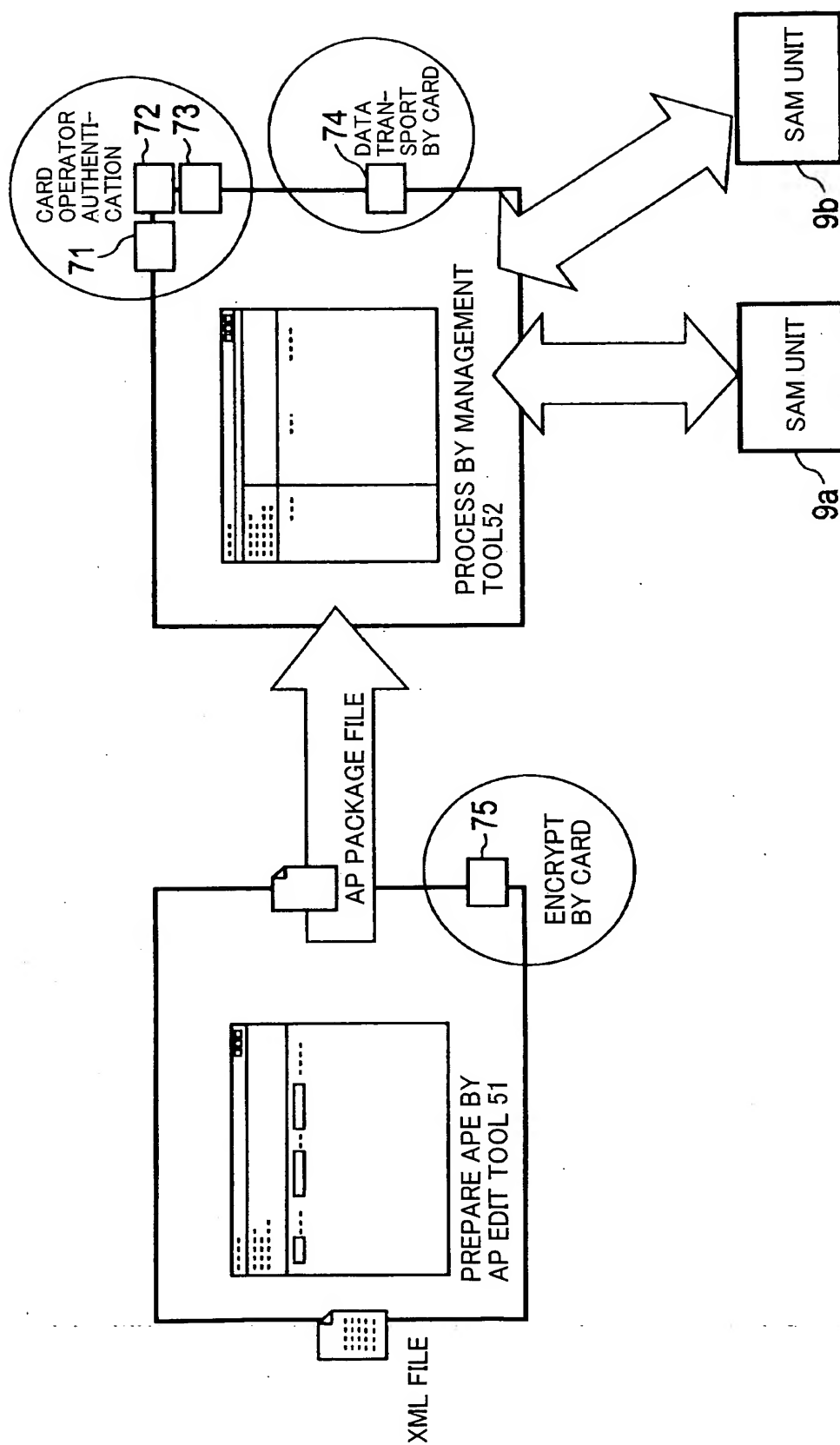


FIG. 9

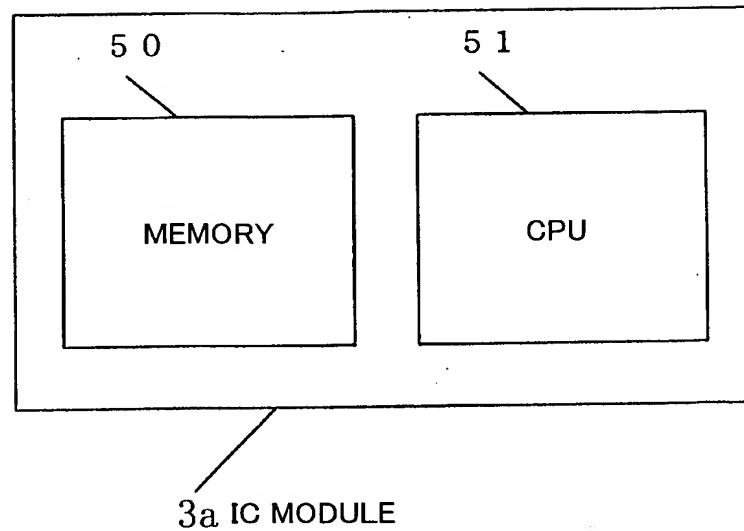


FIG. 10

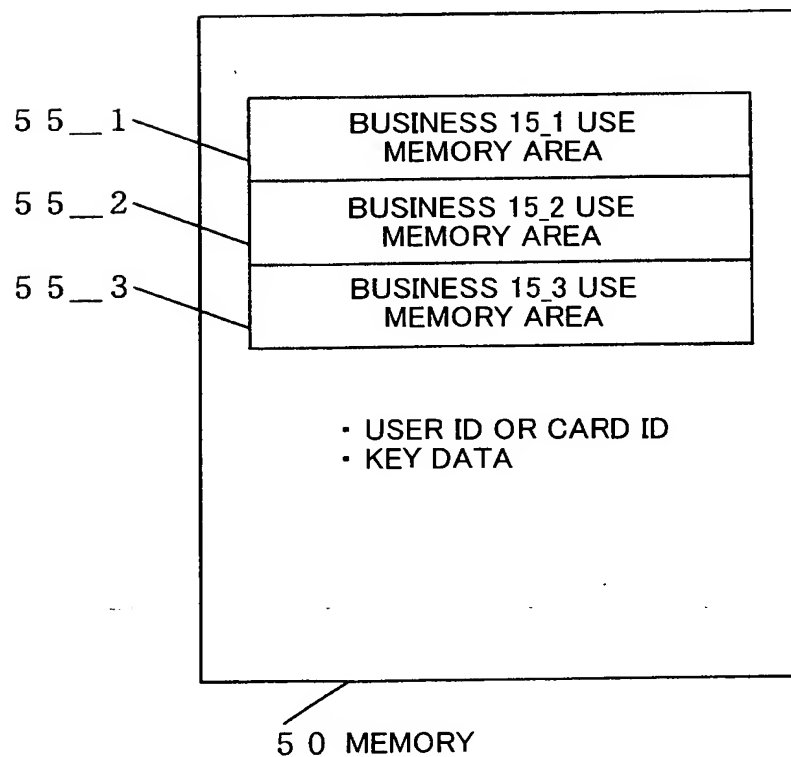


FIG. 11

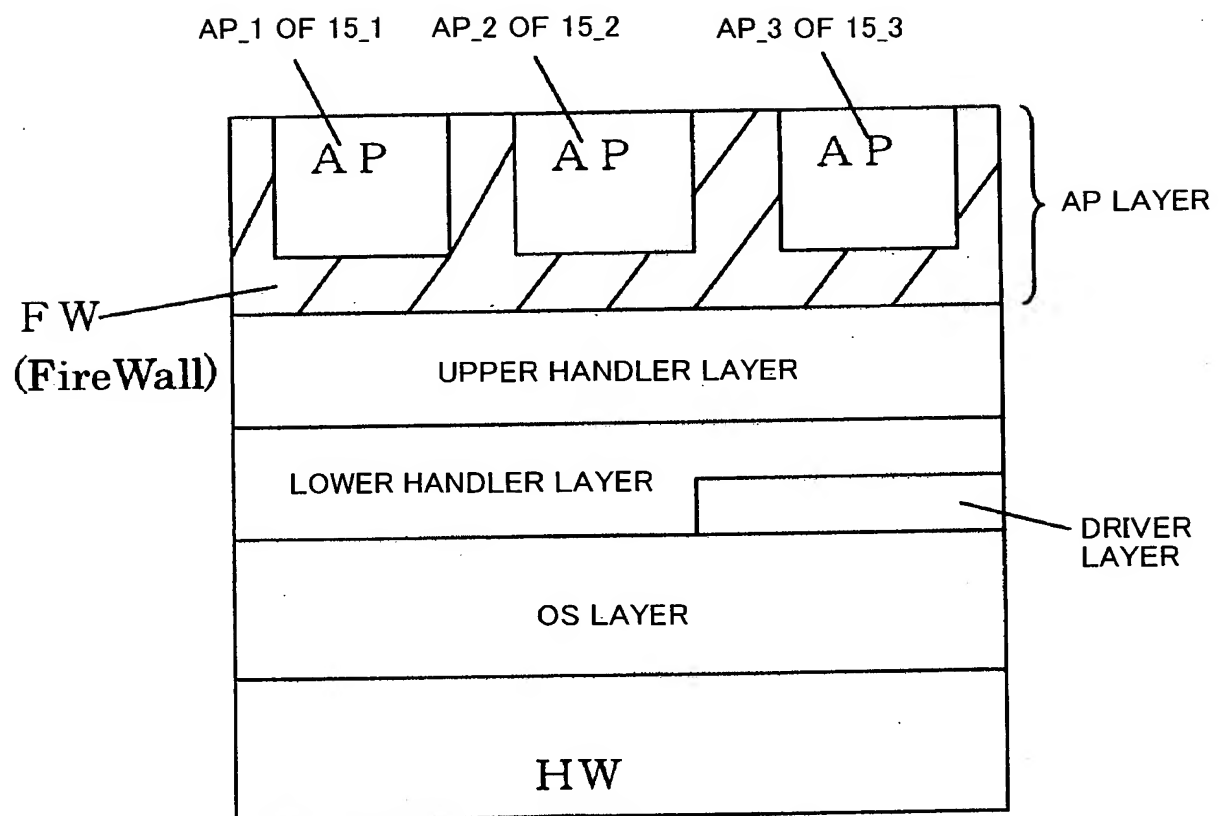


FIG. 12

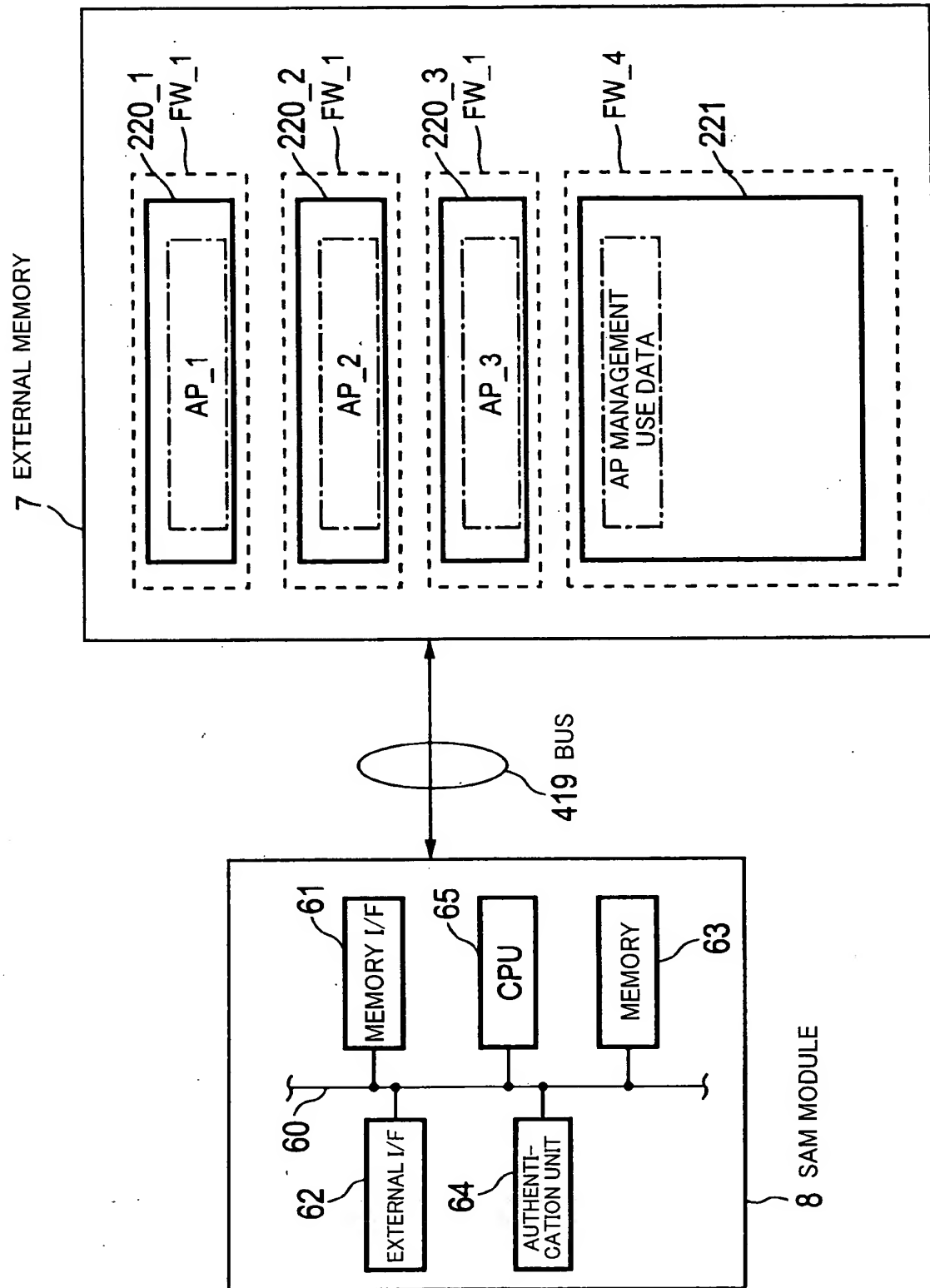


FIG. 13

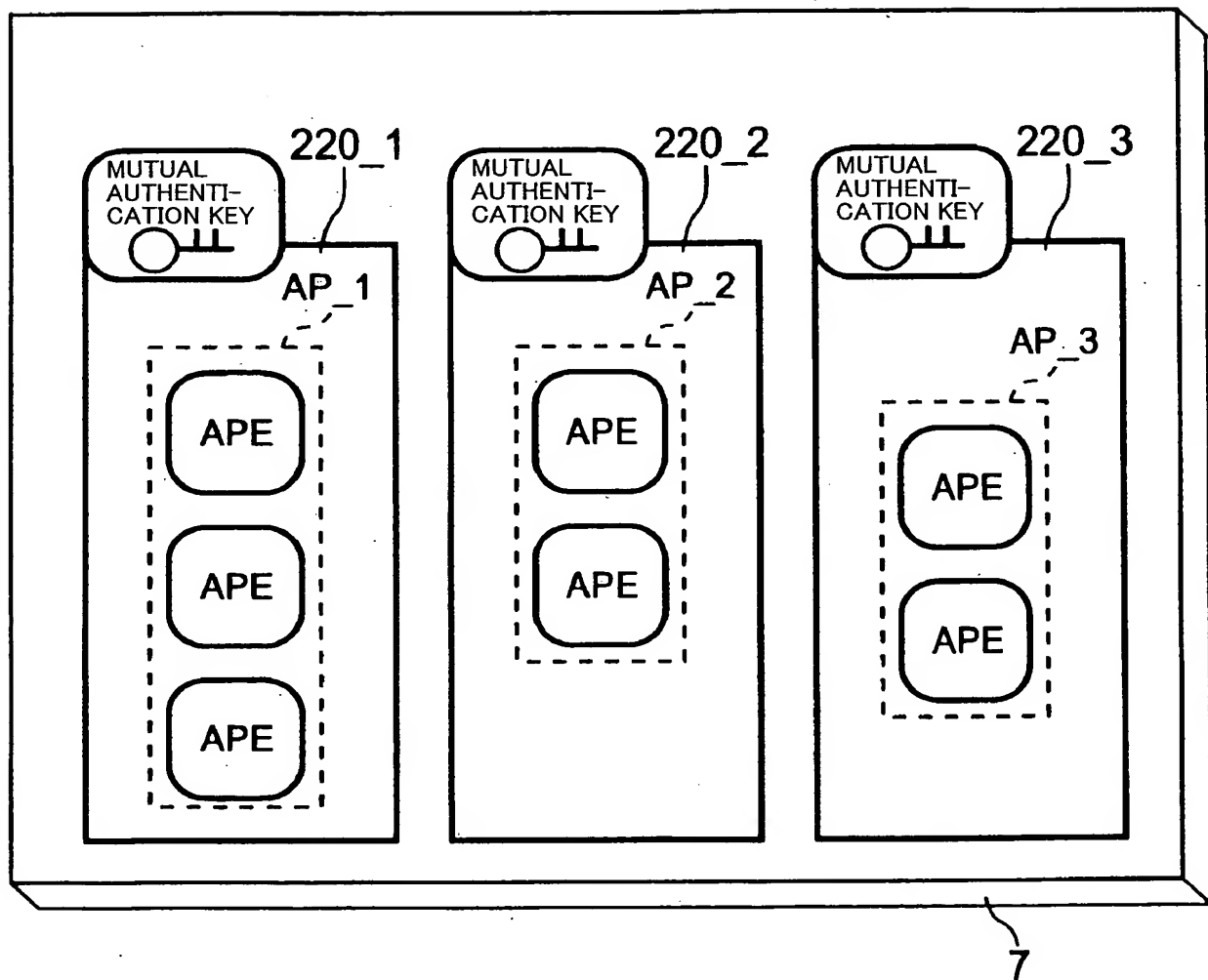


FIG. 14

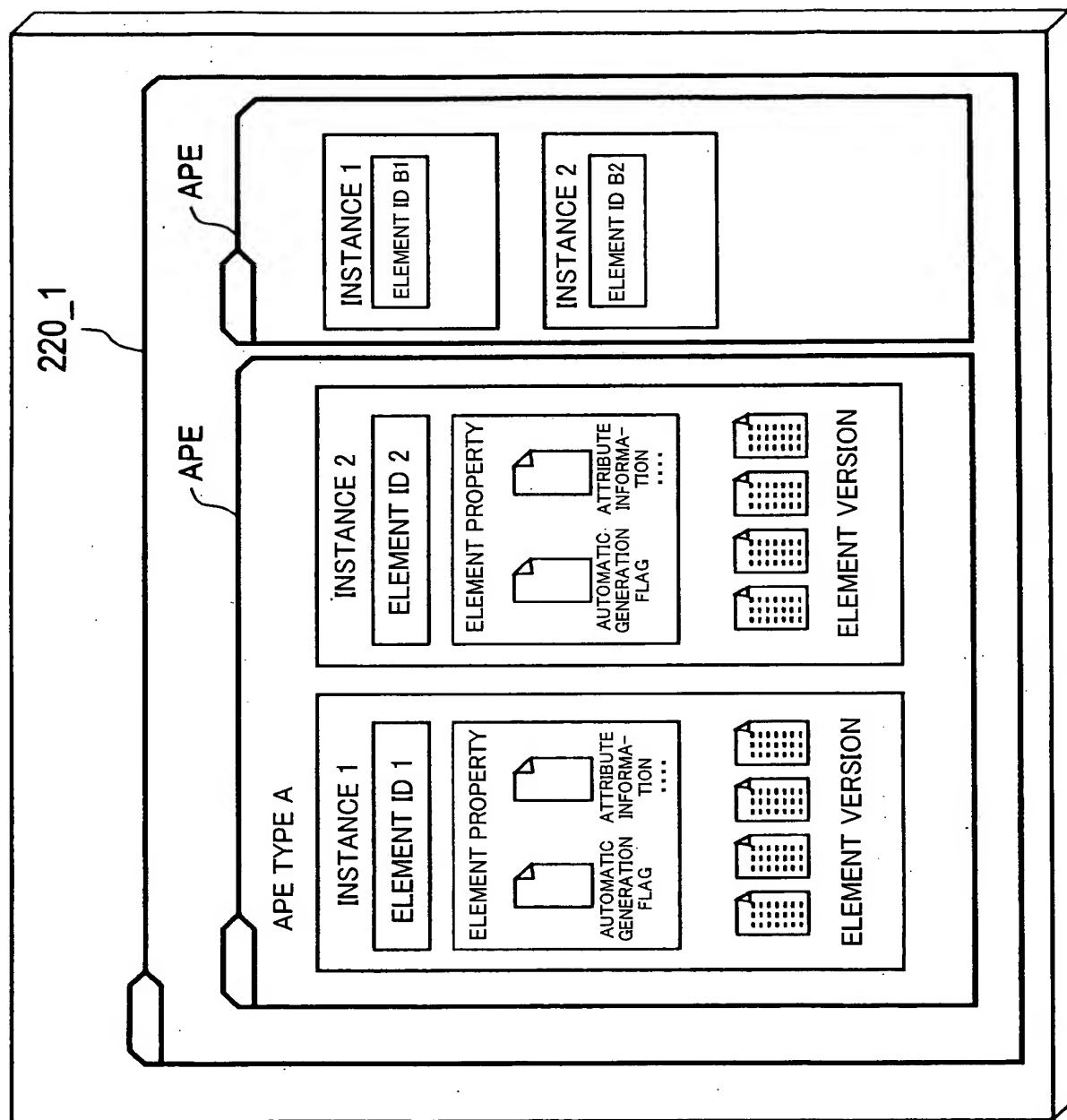


FIG. 15

APE TYPE NUMBER	APE TYPE
...	IC SYSTEM KEY
...	IC AREA KEY
...	IC SERVICE KEY
...	IC SYNTHETIC KEY
...	IC KEY CHANGE PACKAGE
...	IC ISSUANCE KEY PACKAGE
...	IC EXPANSION ISSUANCE KEY PACKAGE
...	IC AREA REGISTRATION KEY PACKAGE
...	IC AREA DELETION KEY PACKAGE
...	IC SERVICE REGISTRATION KEY PACKAGE
...	IC SERVICE DELETION KEY PACKAGE
...	IC MEMORY DIVISION KEY PACKAGE
...	IC MEMORY DIVISION ELEMENT KEY PACKAGE
...	OBSTACLE RECORDING FILE
...	MUTUAL AUTHENTICATION USE KEY
...	PACKAGE KEY
...	NEGATIVE LIST
...	SERVICE DATA TEMPORARY FILE

FIG. 16

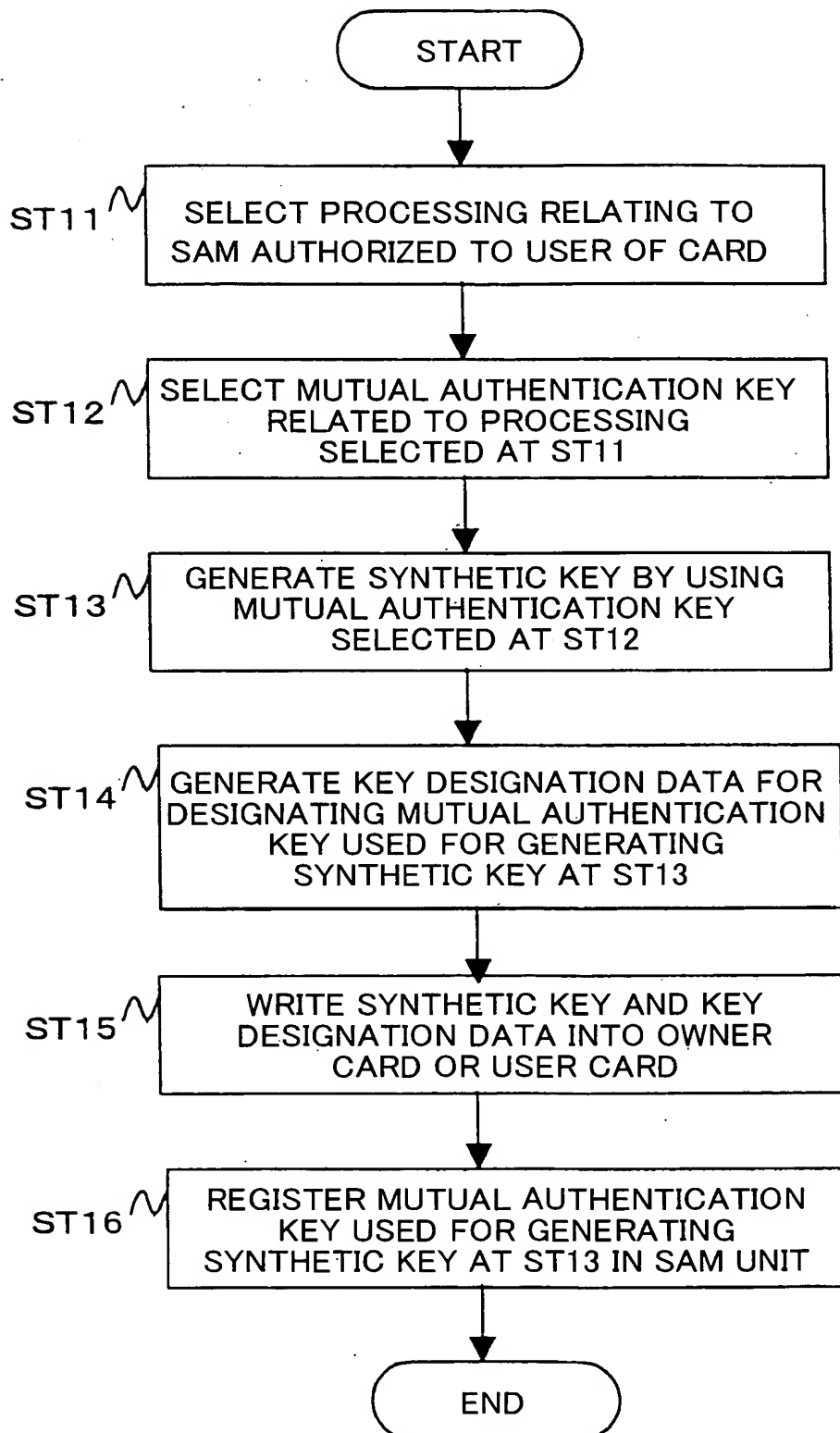


FIG. 17

MUTUAL AUTHENTICATION KEY NAME	AP MEMORY AREA -ID	APE TYPE NUMBER	INSTANCE NUMBER	ELEMENT VERSION
DEVICE KEY
TERMINATION KEY
MANUFACTURER SETTING SERVICE MUTUAL AUTHENTICATION KEY
HARDWARE MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
COMMUNICATION MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
MUTUAL AUTHENTICATION SERVICE MUTUAL AUTHENTICATION KEY
AP MEMORY AREA MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
SERVICE AP MEMORY AREA MUTUAL AUTHENTICATION KEY
SYSTEM AP MEMORY AREA MUTUAL AUTHENTICATION KEY
MANUFACTURER AP MEMORY AREA MUTUAL AUTHENTICATION KEY

FIG. 18

AP MEMORY AREA ID	ELEMENT TYPE NUMBER	ELEMENT INSTANCE NUMBER	ELEMENT VERSION NUMBER
2 BYTES	2 BYTES	2 BYTES	2 BYTES
AP RESOURCE AREA TO WHICH IT BELONGS	MUTUAL AUTHENTICATION KEY (FIXED VALUE)	ID OF RELEASE KEY RING	VERSION NUMBER OF USED KEY

MUTUAL AUTHENTICATION KEY NAME	AP MEMORY AREA-ID	APE TYPE NUMBER	INSTANCE NUMBER	ELEMENT VERSION
DEVICE KEY
HARDWARE MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
COMMUNICATION MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
AP MEMORY AREA MANAGEMENT SERVICE MUTUAL AUTHENTICATION KEY
SERVICE AP MEMORY AREA AP-R MUTUAL AUTHENTICATION KEY
TERMINATION KEY

FIG. 19A

• COMMAND WHICH CAN BE EXECUTED

SERVICE TYPE	COMMAND NAME
HARDWARE MANAGEMENT SERVICE	...
COMMUNICATION MANAGEMENT SERVICE	...
IC SERVICE	...
MUTUAL AUTHENTICATION SERVICE	...
AP MEMORY AREA MANAGEMENT SERVICE	...

FIG. 19B

FIG. 20

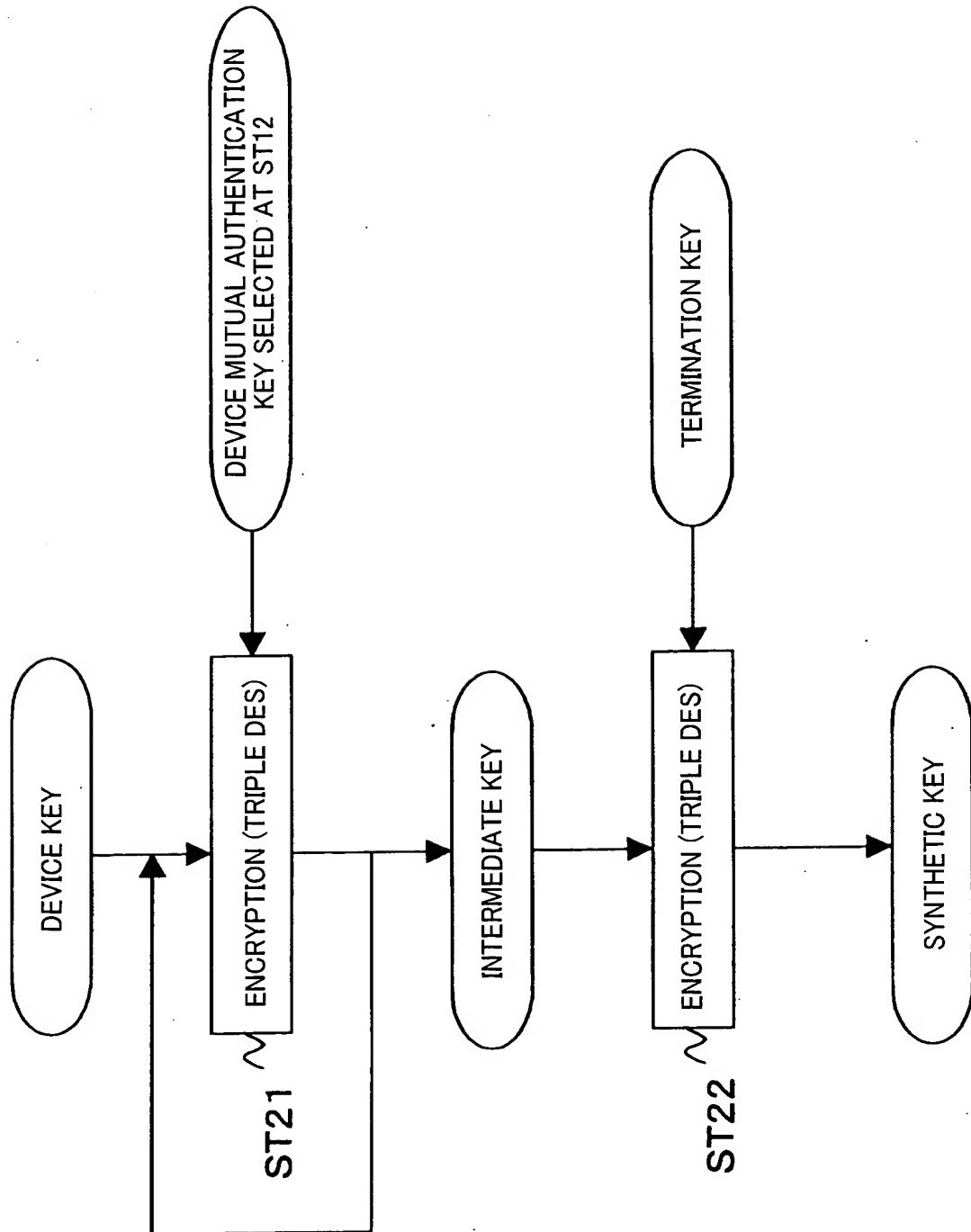


FIG. 21

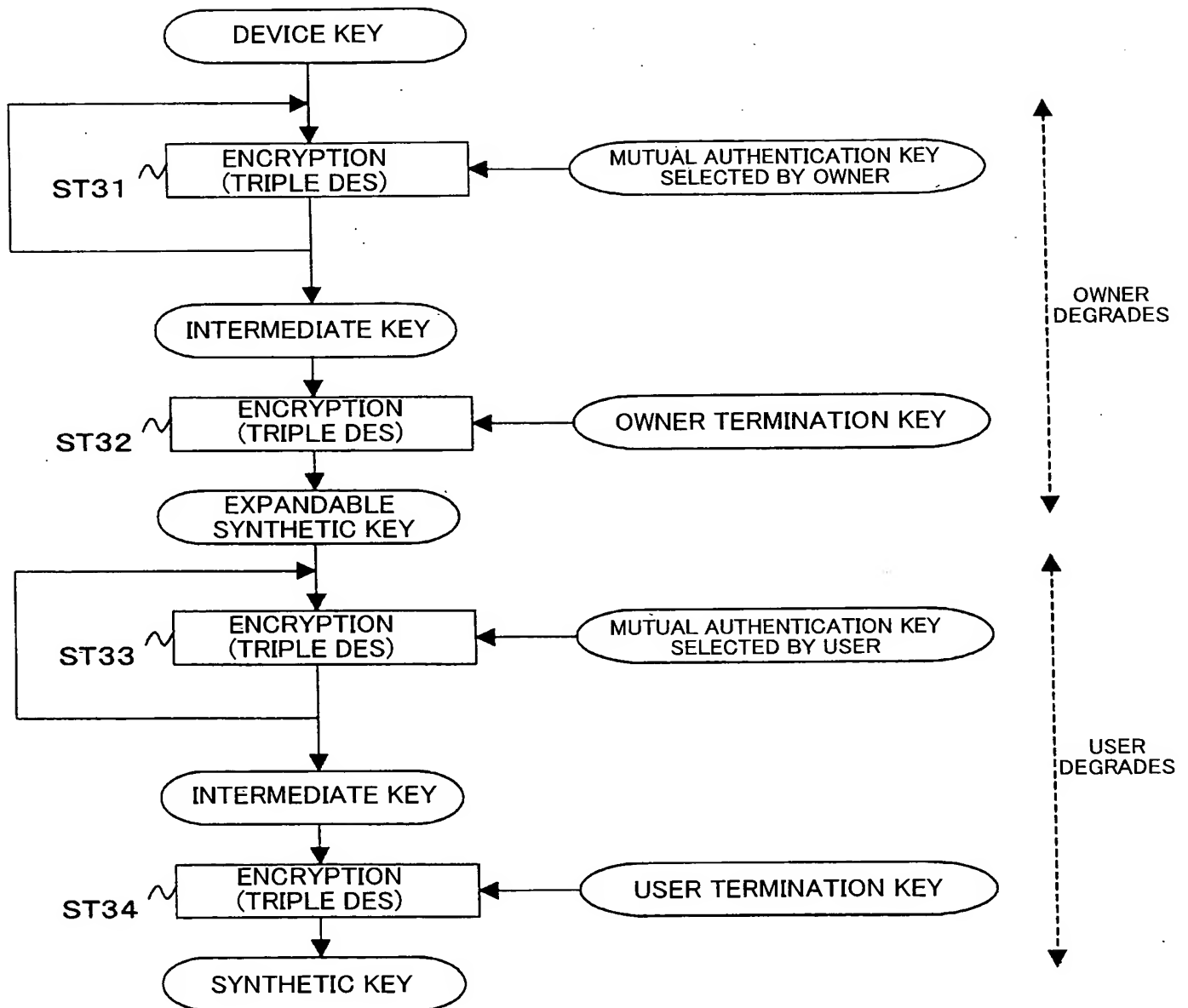


FIG. 22

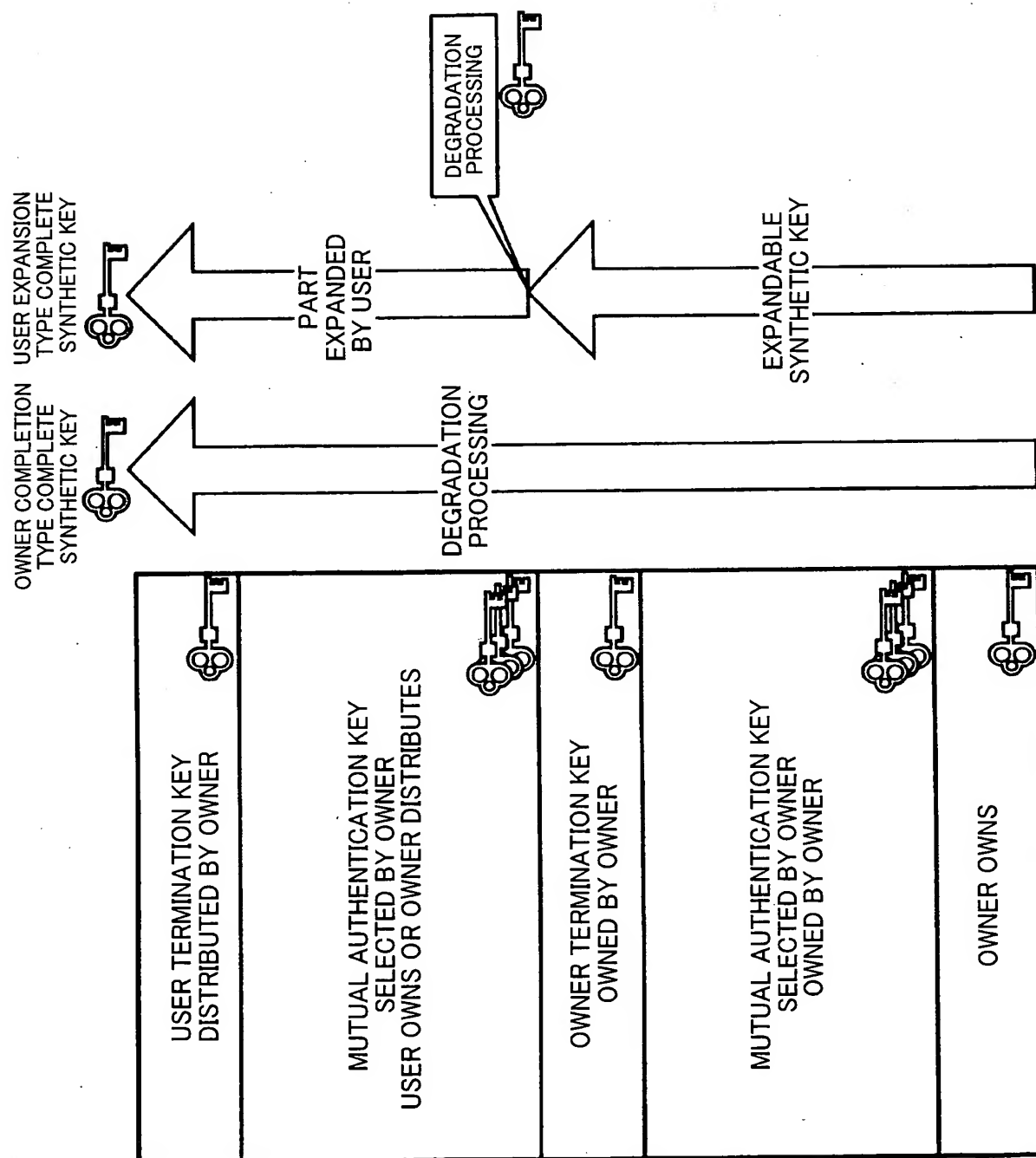


FIG. 23

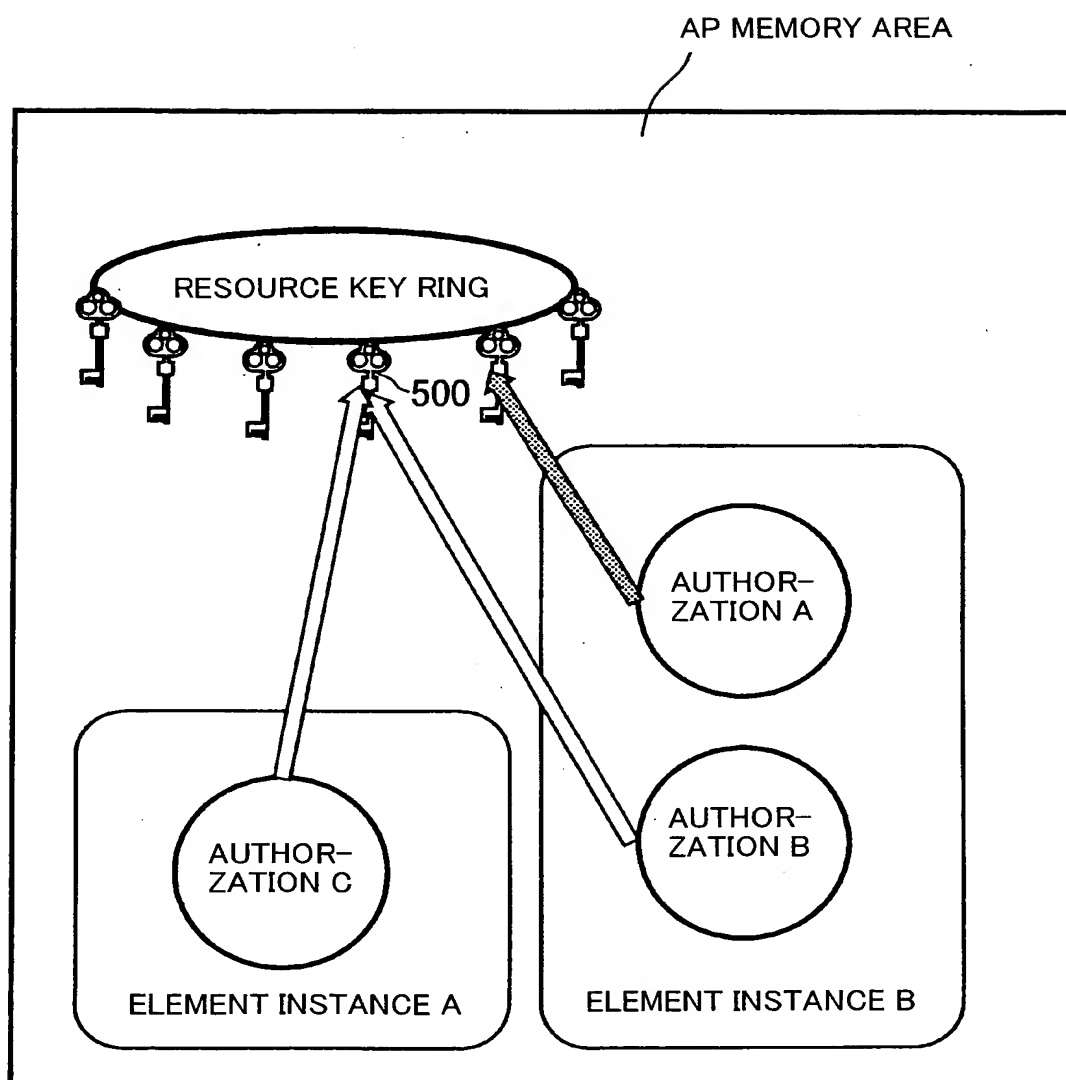


FIG. 24

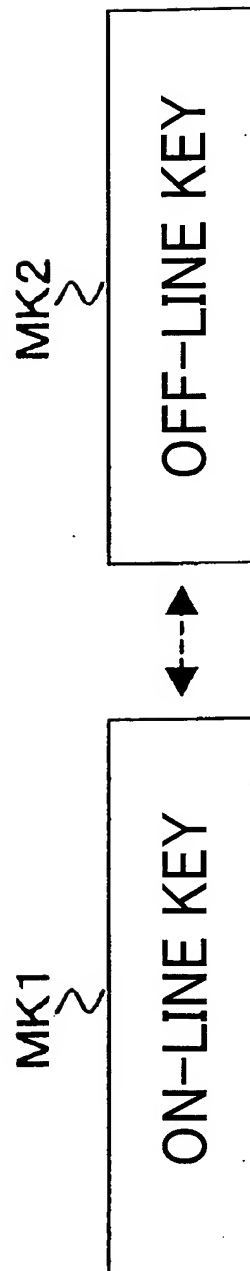


FIG. 25

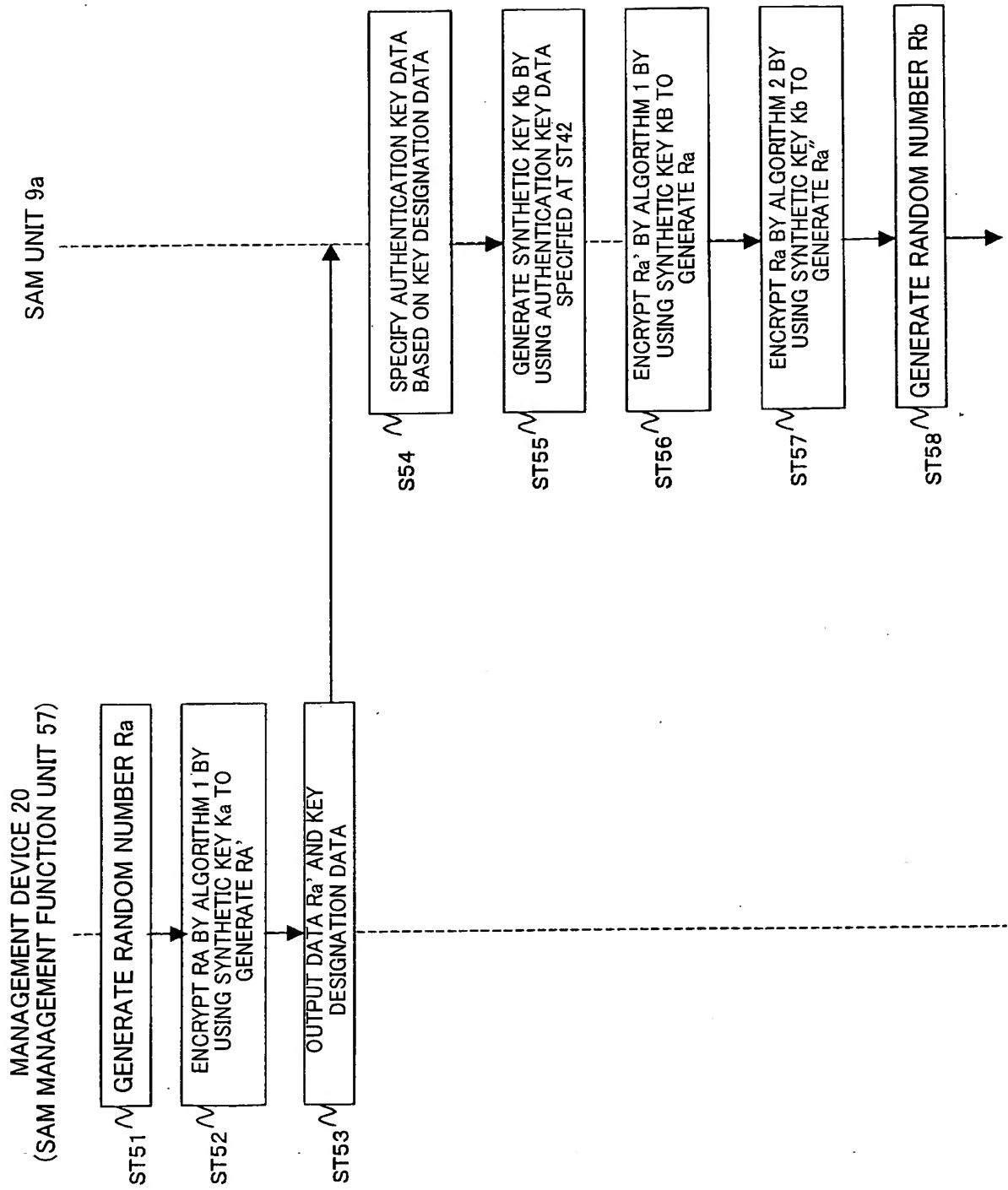


FIG. 26

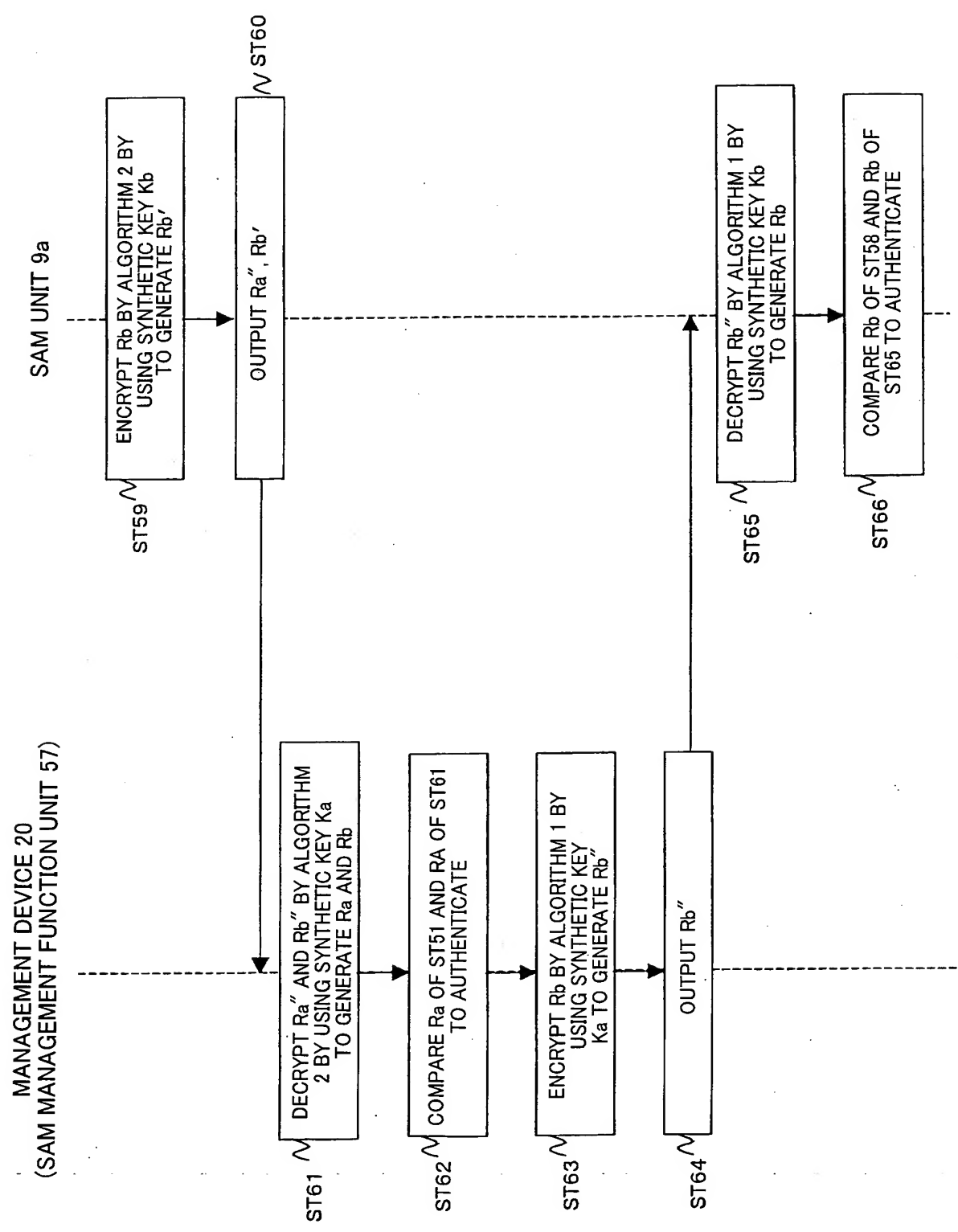
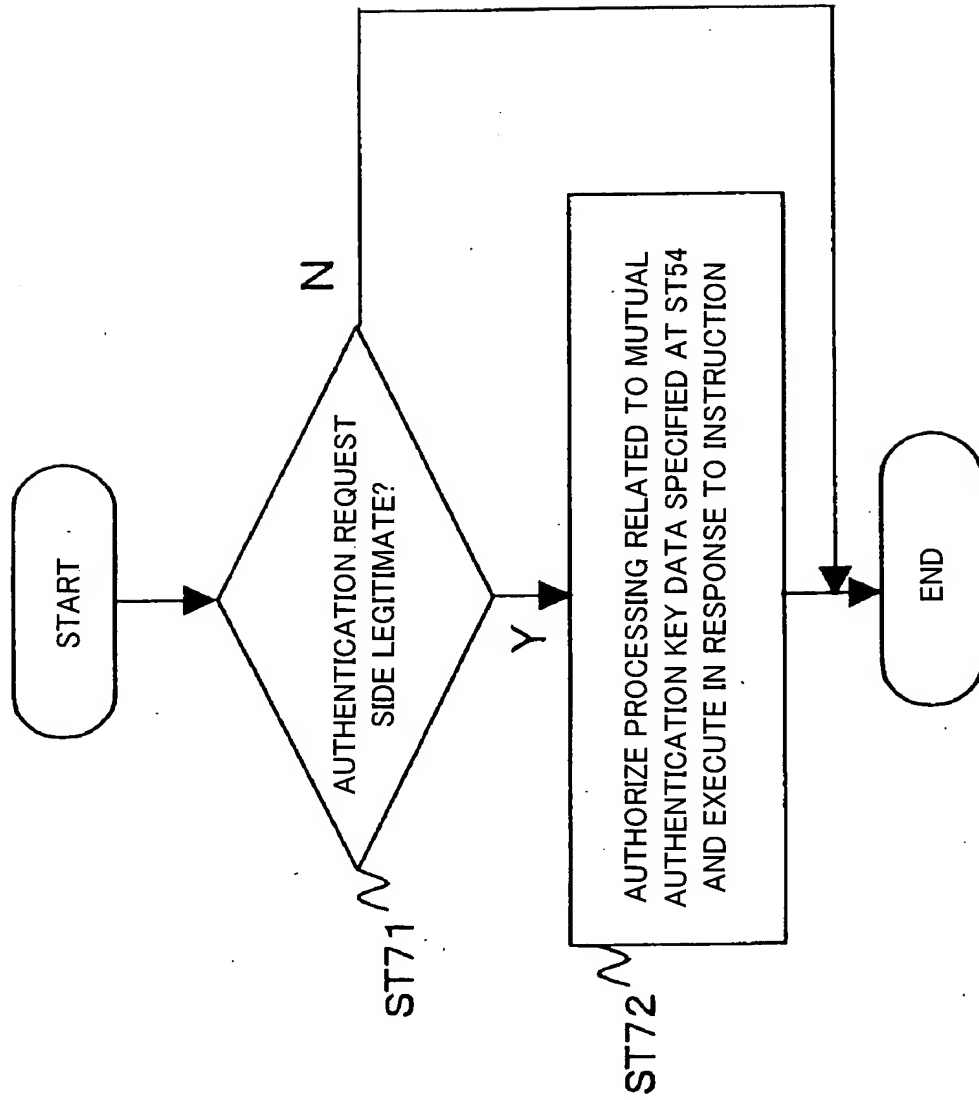


FIG. 27



LIST OF REFERENCES

- 1... communication system
- 2... server apparatus
- 3... IC card
- 5 4... card RW
- 6... PC
- 7... external memory
- 8... SAM module
- 9a, 9b... SAM units
- 10 19a, 19b... ASP server apparatus
- 20... management device
- 51... AP edit tool
- 52... management tool
- 53... card reader/writer
- 15 54... display
- 55... I/F, 56... operating unit
- 57... SAM management function portion
- 58... card management function portion
- 61... memory I/F
- 20 62... external I/F
- 63... memory
- 64... authentication unit
- 65... CPU
- 71... default card
- 25 72... owner card

- 73... user card
- 74... transport card
- 75... AP encryption card
- 301... data processing system
- 5 302, 303... data processing device
- 310... memory
- 311... authentication unit
- 312... encryption unit
- 313... interface
- 10 314... CPU
- 330... memory
- 331... authentication unit
- 332... decryption unit
- 333... I/F